

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Not for submission under 37 CFR 1.99)

Application Number	10617979
Filing Date	2003-07-11
First Named Inventor	Henkin et al.
Art Unit	1637
Examiner Name	Samuel C. Woolwine
Attorney Docket Number	22727/04130

**U.S. PATENTS**

Examiner Initial*	Cite No	Patent Number	Kind Code <sup>1</sup>	Issue Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
	1					

If you wish to add additional U.S. Patent citation information please click the Add button.

**U.S. PATENT APPLICATION PUBLICATIONS**

Examiner Initial*	Cite No	Publication Number	Kind Code <sup>1</sup>	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
	1					

If you wish to add additional U.S. Published Application citation information please click the Add button.

**FOREIGN PATENT DOCUMENTS**

Examiner Initial*	Cite No	Foreign Document Number <sup>3</sup>	Country Code <sup>2</sup>	Kind Code <sup>4</sup>	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	T <sup>5</sup>
/S.W./	1	2004/007677	WO		2004-01-22	The Ohio State University		<input type="checkbox"/>

If you wish to add additional Foreign Patent Document citation information please click the Add button

**NON-PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>5</sup>

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**  
( Not for submission under 37 CFR 1.99)

Application Number	10617979
Filing Date	2003-07-11
First Named Inventor	Henkin et al.
Art Unit	1637
Examiner Name	Samuel C. Woolwine
Attorney Docket Number	22727/04130

/S.W./	1	Artsimovitch, I., et al., "RNA polymerases from Bacillus subtilis and escherichia coli differ in recognition of regulatory signals in vitro", (2000) J. Bacteriol. 182, 6027-6035.	<input type="checkbox"/>
	2	Grandoni, J. A., et al., "Regions of the Bacillus subtilis ilv-leu Operon involved in regulation by Leucine" (1993) J. Bacteriol. 175, 7581-7593.	<input type="checkbox"/>
	3	Grundy, F. J., et al., "Interaction between the acceptor end of tRNA and the T box stimulates antitermination in the bacillus subtilis tyrS gene: a new role for the discriminator base" (1994) J. Bacteriol. 176, 4518-4526.	<input type="checkbox"/>
	4	Grundy, F. J., et al., "tRNA determinants for transcription antitermination of the bacillus subtilis tyrS gene". (2000) RNA 6, 1131-1141.	<input type="checkbox"/>
	5	Grundy et al., "Monitoring uncharged tRNA during transcription of the bacillus subtilis glyQS Gene", (2005) J Mol Biol, 346, 73-81.	<input type="checkbox"/>
	6	Hager, D. A., et al., "Use of mono Q high-resolution ion-exchange chromatography to obtain highly pure and active escherichia coli RNA polymerase", (1990) Biochemistry 29, 7890-7894.	<input type="checkbox"/>
	7	Hurwitz et al., "The intracellular concentration of bound and unbound magnesium ions in escherichia coli", (1967) J of Biol. Chemistry, 242, 3719-3722.	<input type="checkbox"/>
	8	Landick, R., Turnbough, C. L., Jr., & Yanofsky, C. (1996) in Escherichia coli and Salmonella: Cellular and Molecular Biology, eds. Neidhardt, F. C., Curtis, R., III, Ingraham, J. L., Lin, E. C. C., Low, K. B., Magasanik, B., Reznikoff, W. S., Riley, M., Schaecter, A. & Umberger, H. E. (Am. Soc. Microbiol., Washington, DC), 1263-1286.	<input type="checkbox"/>
	9	Luo, D., et al., "In vitro and in vivo secondary structure probing of the thrS leader in Bacillus subtilis", (1998) Nucleic Acids Res. 26, 5379-5387.	<input type="checkbox"/>
	10	Nelson et al., "tRNA regulation of gene expression: Interactions of an mRNA 5'-UTR with a regulatory tRNA", (2006) RNA, 12, 1-8.	<input type="checkbox"/>
↓	11	Qi, Y. & Hulett, F. M. "PhoP~P and RNA polymerase $\sigma$ A holoenzyme are sufficient for transcription of Pho regulon promoters in bacillus subtilis: PhoP~P activator sites within the coding region stimulate transcription in vitro", (1998) Mol. Microbiol. 28, 1187-1197.	<input type="checkbox"/>

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**  
( Not for submission under 37 CFR 1.99)

Application Number	10617979
Filing Date	2003-07-11
First Named Inventor	Henkin et al.
Art Unit	1637
Examiner Name	Samuel C. Woolwine
Attorney Docket Number	22727/04130

/S.W./	12	Rollins, S. M., et al., "Analysis of cis-acting sequence and structural elements required for antitermination of the bacillus subtilis tyrS gene", (1997) Mol. Microbiol. 25, 411-421.	<input type="checkbox"/>
	13	Winkler, W. C., et al., "The GA motif: an RNA element common to bacterial antitermination systems, rRNA, and eukaryotic RNAs", (2001) RNA 7, 1165-1172.	<input type="checkbox"/>
	14	Yousef et al., "Structural transitions induced by the interaction between tRNAGLY and the bacillus subtilis glyQS T box leader RNA", (2005) J Mol Biol, 349, 273-287.	<input type="checkbox"/>
	15	Henkin et al., "Sensing Metabolic Signals with nascent RNA transcripts: the T-box and S-box riboswitches as paradigms", (2007) Cold Spring Harbor Symposia on Quantitative Biology, vol. LXXI, 1-7.	<input type="checkbox"/>
	16	Grundy, F. J. & Henkin, T. M. "tRNA as a positive regulator of transcription antitermination in B. subtilis", (1993) Cell 74, 475-482.	<input type="checkbox"/>
	17	Anagnostopoulos, C. & Spizizen, J. "Requirements for Transformation in Bacillus Subtilis", (1961) J. Bacteriol. 81, 741-746.	<input type="checkbox"/>
	18	Ban et al., "The Complete Atomic Structure of the Large Ribosomal Subunit at 2.4 A Resolution", (2000) Science 289, 905-920.	<input type="checkbox"/>
	19	Friedman, D. I. & Court, D. L. "Bacteriophage lambda: alive and well and still doing its thing", (2001) Curr. Opin. Microbiol. 4, 201-207.	<input type="checkbox"/>
	20	Giege et al., "Universal rules and idiosyncratic features in tRNA identity", (1998) Nucleic Acids Res. 26, 5017-5035.	<input type="checkbox"/>
	21	Grundy et al., "Regulation of the Bacillus subtilis Acetate Kinase Gene by CcpA", (1993) J. Bacteriol. 175, 7348-7355.	<input type="checkbox"/>
↓	22	Ogle et al., "Recognition of Cognate Transfer RNA by the 30S Ribosomal Subunit", (2001) Science 292, 897-902.	<input type="checkbox"/>

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**  
( Not for submission under 37 CFR 1.99)

Application Number	10617979
Filing Date	2003-07-11
First Named Inventor	Henkin et al.
Art Unit	1637
Examiner Name	Samuel C. Woolwine
Attorney Docket Number	22727/04130

/S.W./	23	Qiu et al., "The tRNA-binding moiety in GCN2 contains a dimerization domain that interacts with the kinase domain and is required for tRNA binding and kinase activation", (2001) EMBO J. 20, 1425-1438.	<input type="checkbox"/>
↓	24	Rhodes, G. & Chamberlin, M. J. ""Ribonucleic Acid Cain Elongation by Escherichia coli Ribonucleic Acid Polymerase", (1974) J. Biol. Chem. 249, 6675-6683.	<input type="checkbox"/>
↓	25	Sankaranarayanan et al., "The Structure of Threonyl-tRNA Synthetase-tRNA Complex Enlightens Its Repressor Activity and Reveals an Essential Zinc Ion in the Active Site", (1999) Cell 97, 371-381.	<input type="checkbox"/>
↓	26	Treiber, D. K. & Williamson, J. R. "Beyond kinetic traps in RNA folding", 82, 221-230.(2001) Curr. Opin. Struct. Biol. 11, 309-314.	<input type="checkbox"/>
↓	27	Weeks, K. M. & Cech, T. R. "Protein Facilitation of Group I Intron Splicing by Assembly of the Catalytic Core and the 5' Splice Site Domain", (1995) Cell 82, 221-230.	<input type="checkbox"/>
↓	28	Guerrier-Takada et al., "The RNA Moiety of Ribonuclease P Is the Catalytic Subunit of the Enzyme", (1983) Cell 35, 849-857.	<input type="checkbox"/>

If you wish to add additional non-patent literature document citation information please click the Add button

**EXAMINER SIGNATURE**

Examiner Signature	/Samuel Woolwine/	Date Considered	05/05/2008
--------------------	-------------------	-----------------	------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> See Kind Codes of USPTO Patent Documents at [www.USPTO.GOV](http://www.USPTO.GOV) or MPEP 901.04. <sup>2</sup> Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>3</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>4</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>5</sup> Applicant is to place a check mark here if English language translation is attached.